1

- Inverter chiller
- Optimised for use with R-410A
- Daikin swing compressor
- Integrated hydronics
- No buffer tank needed
- Advanced control possibilities
- Precise temperature control
- Single phase power supply

2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EWAQ005ACV3P	EWAQ006ACV3P	EWAQ007ACV3P
Capacity (Eurovent conditions specified in notes)	Cooling	Minimum	kW	4.01	4.01	4.01
		Nominal	kW	5.2	6.0	7.1
		Maximum	kW	5.2	6.0	7.1
Nominal input (Eurovent conditions specified in notes)	Cooling		kW	1.89	2.35	2.95
EER				2.75	2.55	2.41
Casing	Colour			Ivory white		
	Material			Polyester painted steel plate		
Dimensions	Unit	Height	mm	805		
		Width	mm	1190		
		Depth	mm	360		
	Unit with packing	Height	mm	915		
		Width	mm	1265		
		Depth	mm	442		
Weight	Unit		kg	100		
	Operating Weight		kg	104		
	Gross weight		kg	108		
Water Heat Exchanger	Type			Brased plate		
	Filter	Type		Brass Y-strainer		
		Diameter perforations	mm	1	1	1
	Minimum water volume in the system		l	10	10	10
	Water flow rate	Min	l/min	12	12	12
	Nominal Water Flow	Cooling	l/min	14.9	17.2	20.4
	Insulation material			Polyethylene foam		
	Model	Quantity		1	1	1
		Model		ACH30-48		
Air heat exchanger	Type			Tube type		
	Rows			2		
	Stages			32		
	Fin Pitch		mm	1.8		
Pump	Type			Water cooled		
	Quantity			1		
	Model			RS 25/7 3PL 130 3		
	Nominal static height unit	Heating	kPa	49.4	45.1	38.3
Hydraulic components	Antifreeze heater		W	75		
	Expansion vessel	Volume	l	6		
		Pre-pressure	bar	1		
	Water filter		inch	1"		
	Safety valve		bar	3		
Fan	Type			Propeller		
	Model	Quantity		1		
		Motor Output	W	53		
		Discharge direction		Horizontal		
Compressor	Type			Hermetically sealed swing compressor		
	Refrigerant oil type			FVC50K		
	Refrigerant oil charge		l	0.75		
	Model	Quantity		1		
		Model		2YC63BXD#C		

2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EWAQ005ACV3P	EWAQ006ACV3P	EWAQ007ACV3P
Sound Level	Sound Power	Cooling	dBA	62	62	63
	Sound Pressure	Cooling	dBA	48	48	50
Refrigerant circuit	Refrigerant type			R-410A		
	Refrigerant charge		kg	1.7		
	No of circuits			1		
	Refrigerant control			Inverter		
Piping connections	Water heat exchanger inlet / outlet			1" MBSP		
	Water heat exchanger drain			hose nipple 1/2" FBSP		
Notes				Nominal cooling capacity is based on the following conditions: evaporator: 12°C/7°C; ambient: 35°C		
				The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.		

2 Specifications

2-2 ELECTRICAL SPECIFICATIONS				EWAQ005ACV3P	EWAQ006ACV3P	EWAQ007ACV3P
Power Supply	Name			V3		
	Phase			1		
	Frequency		Hz	50		
	Voltage		V	230		
	Voltage Tolerance	Minimum	%	-10%		
		Maximum	%	+10%		
Unit	Zmax	list		No requirements		
	Maximum Running Current		A	17.3		
	Recommended fuses according to IEC standard 269-2			20		
Fan	Quantity			1		
	Phase			1		
	Voltage		V	230		
Pump	Phase			1		
	Power input		kW	0.13		
	Voltage		V	230		
	Maximum Running Current		A	0.58		
	Speed	Minimum	rpm	1050		
		Nominal	rpm	2250		
		Maximum	rpm	2450		
Evaporator Heater Tape	Supply Voltage		V	230		
	Capacity		W	75		
	Voltage Tolerance	Minimum	%	-10%		
		Maximum	%	+10%		
	Recommended fuses			20A		
Notes				Fuse value valid for complete unit		

3 Features

4 Options

Capacity: 5 - 7.1 kW

Modelnumber

EWAQ005A*V3P EWYQ005A*V3P
EWAQ006A*V3P EWYQ006A*V3P
EWAQ007A*V3P EWYQ007A*V3P

Option number	Option description	(On)	Unit size						Availability
			EWAQ005A*V3P	EWAQ006A*V3P	EWAQ007A*V3P	EWYQ005A*V3P	EWYQ006A*V3P	EWYQ007A*V3P	
	Standard unit								
	Available options								
OP10	Evaporator heatertape	-H-	○	○	○	○	○	○	Factory mounted

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Notes

○ Available

5 Capacity tables

5 - 1 Cooling/Heating capacity tables

COOLING

Model	Tamb (°C)	20		25		30		35		40		43	
	LWE (°C)	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
005	7	6.15	1.37	5.85	1.53	5.53	1.70	5.20	1.89	4.52	2.02	3.93	2.22
	11	6.97	1.38	6.63	1.55	6.28	1.74	5.92	1.94	4.99	1.99	4.26	2.13
	13	7.40	1.38	7.04	1.56	6.68	1.75	6.30	1.96	5.23	1.97	4.43	2.08
	16	8.06	1.38	7.69	1.57	7.30	1.77	6.90	1.99	5.60	1.93	4.67	2.00
	20	9.00	1.38	8.60	1.58	8.18	1.80	7.75	2.02	6.10	1.88	4.97	1.87
006	7	7.06	1.74	6.73	1.93	6.37	2.14	6.00	2.35	4.93	2.30	4.11	2.36
	11	7.96	1.78	7.59	1.99	7.20	2.20	6.78	2.43	5.43	2.29	4.45	2.29
	13	8.44	1.80	8.05	2.01	7.64	2.24	7.20	2.47	5.69	2.28	4.62	2.24
	16	9.18	1.82	8.76	2.05	8.32	2.28	7.86	2.53	6.09	2.26	4.88	2.17
	20	10.2	1.85	9.8	2.09	9.29	2.34	8.79	2.60	6.64	2.22	5.21	2.05
007	7	8.31	2.23	7.94	2.46	7.54	2.70	7.10	2.95	5.49	2.65	4.36	2.55
	11	9.31	2.31	8.89	2.55	8.44	2.81	7.49	2.94	5.79	2.59	4.60	2.45
	13	9.82	2.35	9.39	2.60	8.91	2.86	7.78	2.91	5.99	2.53	4.75	2.38
	16	10.6	2.41	10.15	2.67	9.65	2.94	8.23	2.85	6.28	2.45	4.95	2.26
	20	11.7	2.49	11.2	2.76	10.67	3.05	8.82	2.76	6.65	2.31	5.21	2.09

HEATING

Model	LWC	30		35		40		45		50	
	Tamb	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
005	-15	3.74	1.54	3.67	1.66	3.59	1.79	3.51	1.93	3.42	2.09
	-10	4.40	1.63	4.30	1.76	4.19	1.91	4.07	2.07	3.94	2.25
	-7	4.86	1.67	4.73	1.82	4.60	1.98	4.45	2.15	4.31	2.34
	-2	5.69	1.74	5.54	1.91	5.37	2.09	5.20	2.28	5.02	2.48
	2	6.44	1.79	6.26	1.97	6.07	2.16	5.88	2.37	5.67	2.59
	7	7.48	1.85	7.27	2.04	7.05	2.25	6.83	2.47	6.60	2.71
006	-15	4.63	1.94	4.60	2.08	4.56	2.23	4.50	2.40	4.42	2.58
	-10	5.37	2.06	5.30	2.22	5.22	2.39	5.11	2.59	4.98	2.80
	-7	5.88	2.13	5.78	2.30	5.67	2.49	5.54	2.70	5.38	2.92
	-2	6.81	2.23	6.68	2.43	6.52	2.64	6.35	2.87	6.15	3.12
	2	7.64	2.31	7.48	2.53	7.29	2.76	7.09	3.01	6.87	3.27
	7	8.78	2.41	8.58	2.65	8.36	2.90	8.13	3.17	7.87	3.45
007	-15	5.02	2.15	5.02	2.30	4.99	2.46	4.94	2.65	4.87	2.85
	-10	5.82	2.29	5.76	2.46	5.68	2.65	5.58	2.86	5.46	3.10
	-7	6.35	2.37	6.26	2.56	6.16	2.76	6.03	2.99	5.88	3.24
	-2	7.33	2.50	7.20	2.71	7.05	2.95	6.88	3.20	6.69	3.47
	2	8.19	2.60	8.03	2.83	7.86	3.09	7.65	3.36	7.43	3.65
	7	9.37	2.72	9.18	2.98	8.97	3.25	8.73	3.55	8.47	3.86

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SYMBOLS

CC : Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)

HC : Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)

PI : Power input (kW)

LWE : Leaving evaporator water temperature (°C)

LWC : Leaving Water Condensor temperature (°C)

Tamb : Ambient temperature (°C) RH=85%

Note:
The heating capacity and power input in the table has to be multiplied by the correctionfactor CF as listed in the table below to obtain the integrated heating capacity and power input.
The integrated heating capacity and power input, is the average heating capacity and power input during 1 cycle. (from end of defrost till end of the next defrost).

Tamb	-15	-10	-7	-2	2	7
CF for HC	0.89	0,89	0,88	0,87	0,86	1,00
CF for PI	0.95	0,95	0,94	0,93	0,92	1,00

Conditions

1 **Cooling capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C

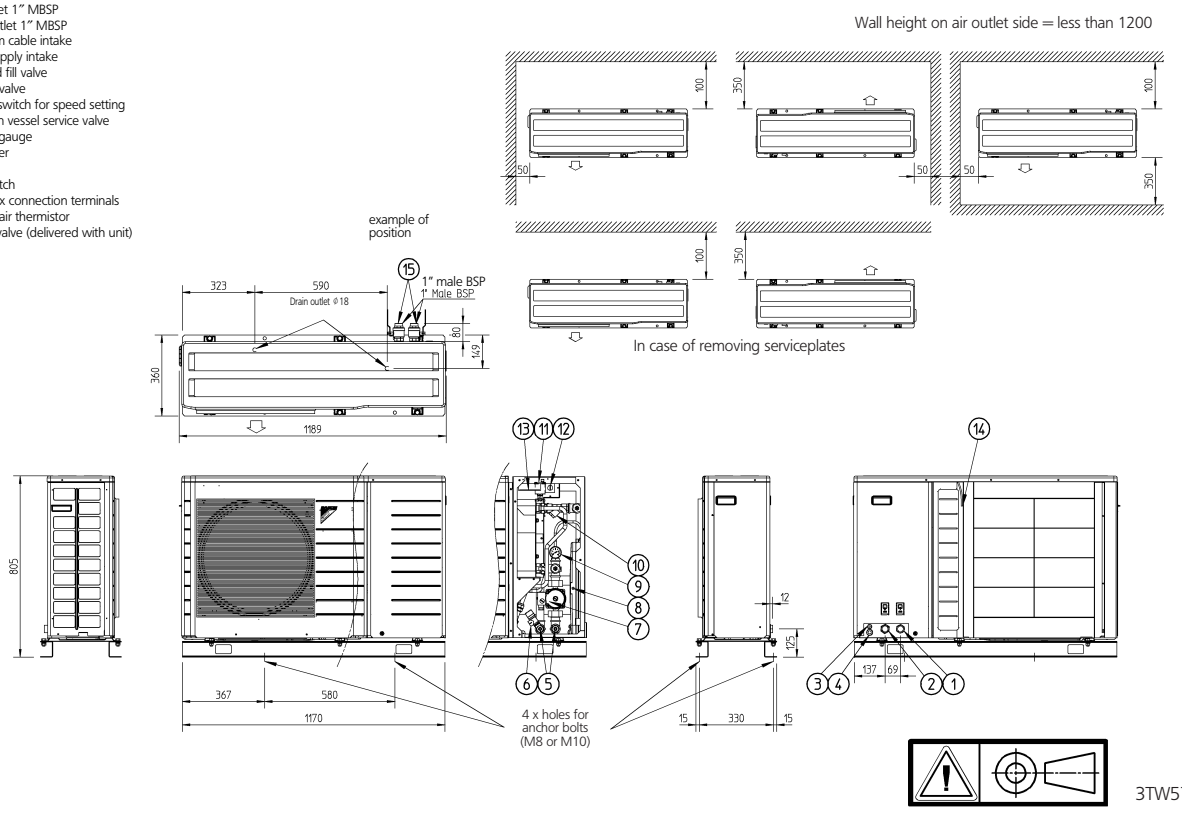
2 **Heating capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C

3 **Power input**
Power input is total input according to Eurovent rating standard 6/C/003-2006

6 Dimensional drawing & centre of gravity

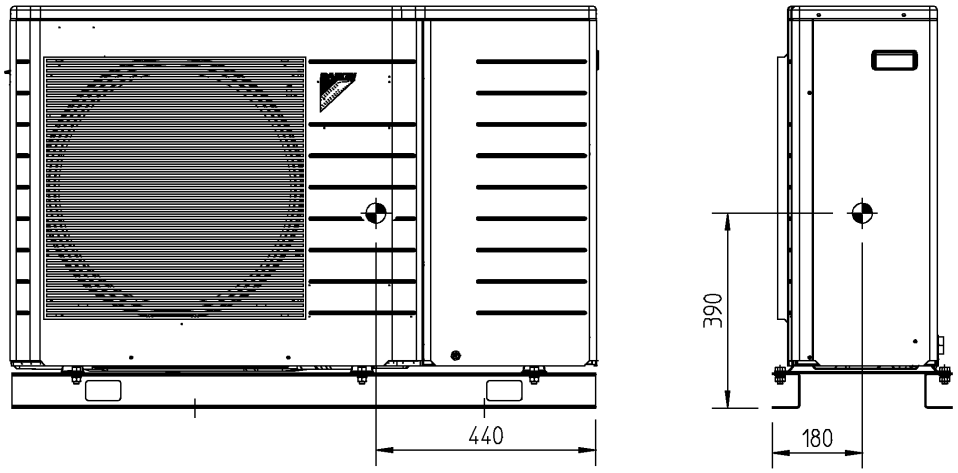
6 - 1 Dimensional drawing

1 Water inlet 1" MBSP
2 Water outlet 1" MBSP
3 Remocom cable intake
4 Power supply intake
5 Drain and fill valve
6 Blow off valve
7 Pump + switch for speed setting
8 Expansion vessel service valve
9 Pressure gauge
10 Water filter
11 Air purge
12 Main switch
13 Switchbox connection terminals
14 Outdoor air thermistor
15 Shut off valve (delivered with unit)



6 Dimensional drawing & centre of gravity

6 - 2 Centre of gravity



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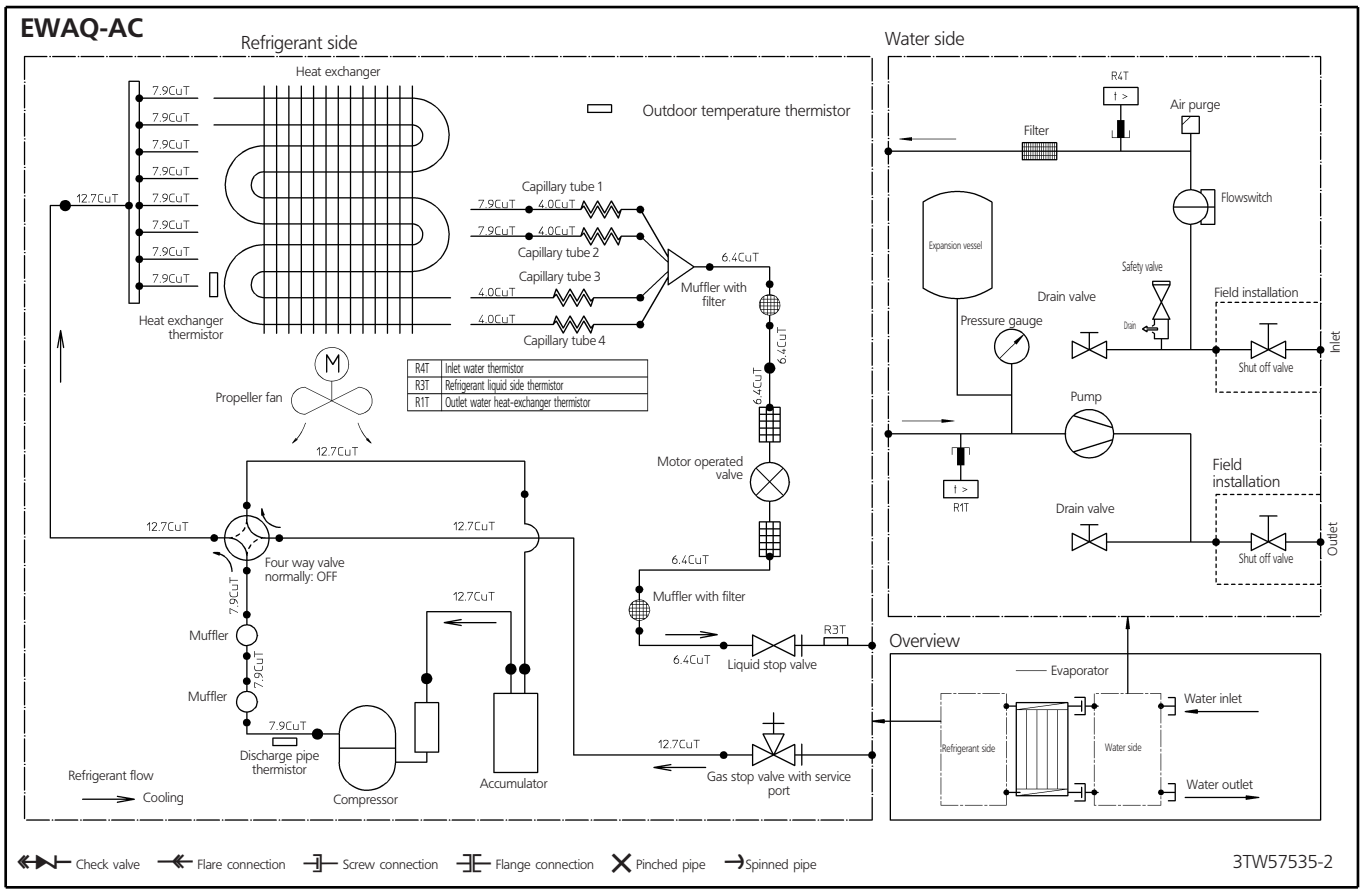
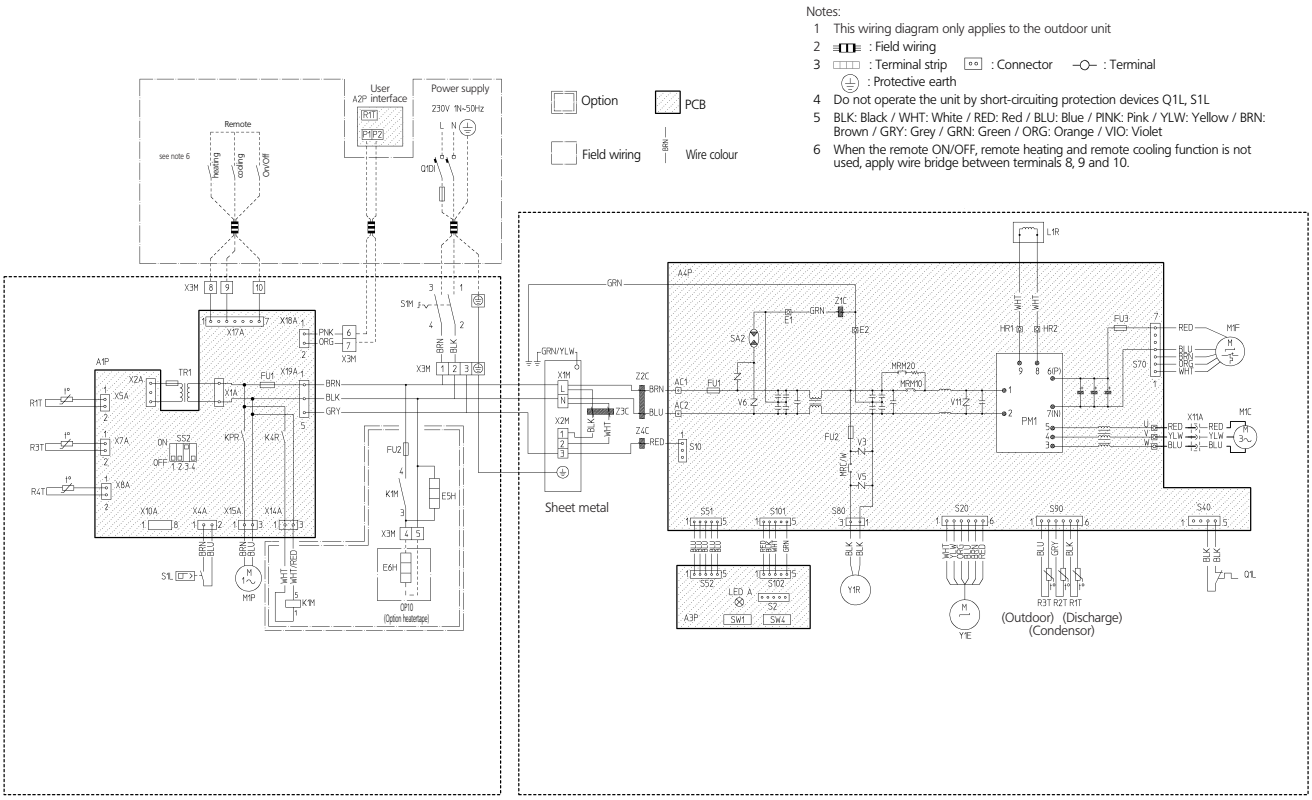
7 Piping diagram



8 Wiring diagram

8 - 1 Wiring diagram

EWAQ/EWYQ AC



Q1DI	Earth leakage protector
TR1	Transformer 24V for PCB
R4T	Inlet water thermistor
R3T	Refrigerant liquid side thermistor
R1T	Outlet water heat exchanger
S1L	Flowswitch
M1P	Pump
A2P	Remocom PCB (indoor)
A1P	Main PCB
S1M	Mainswitch
FU1	Fuse 3.15A T 250V
FU2	Fuse 5A 250V
X1A,X2A	Connector
X4A,X5A	Connector
X7A,X8A	Connector
X10A,X15A	Connector
X17A,X18A	Connector
X19A,X20A	Connector
E5H	Heatertape
E6H	Heatertape (Field supply)
SS2	Dipswitch
K1M	Relay
X3M	Terminal strip

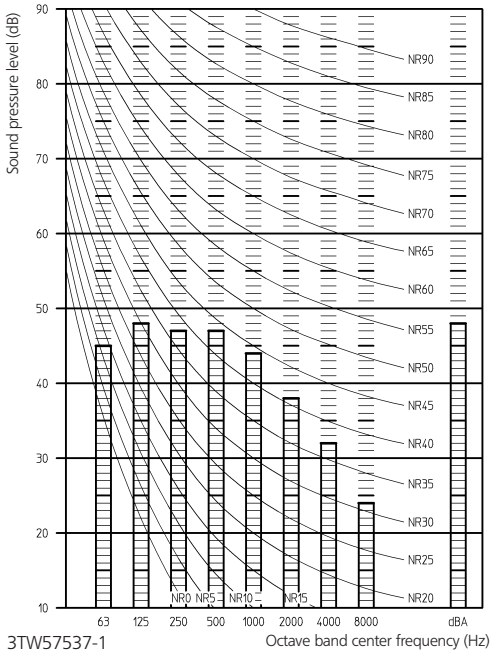
Z1C~Z4C	Ferrite core
X1M,X2M	Terminal strip
Y1E	Electronic expansion valve coil
V2,V3,V5,V6,V11	Varistor
SA2	Surge arrester
FU1	Fuse 30A 250V
FU2	Fuse 3.15A 250V
FU3	Fuse 3.15A 250V
AC1,AC2	
U,V,W,X11A	Connector
E1,E2	
HR1,HR2	Connector
MRM10,MRM20	Magnetic relay
MRC/W	Magnetic relay
R1T~R3T	Thermistor
S2~S102	Connector
LED A	Pilot lamp
L	Live
N	Neutral
SW1	Forced operation on/off SW (SW1)
SW4	Local setting SW (SW4)
M1C	Compressor motors
M1F	Fan motor
L1R	Reactor
Q1L	Overload protector
PM1	Power module
PCB1,2	Printed circuit board
Y1R	Reversing solenoid valve coil
Sheet metal	Terminal strip fixed plate

3TW57536-1A

9 Sound data

9 - 1 Sound pressure spectrum

EWAQ005AC
EWYQ005AC (Cooling)



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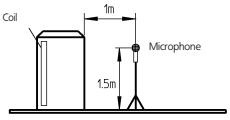
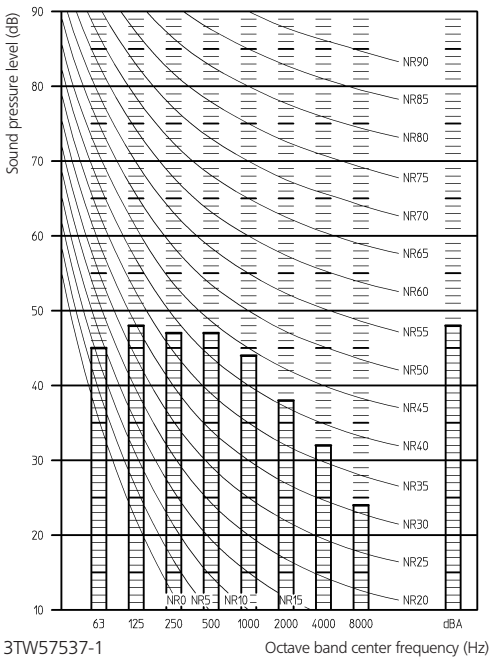
NOTES

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



Location of microphone

EWAQ006AC
EWYQ006AC (Cooling)



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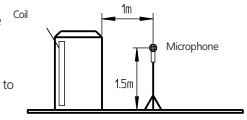
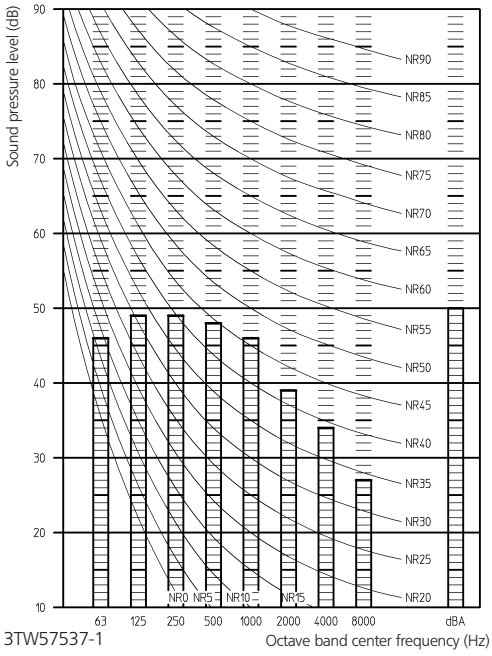
NOTES

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



Location of microphone

EWAQ007AC
EWYQ007AC (Cooling)



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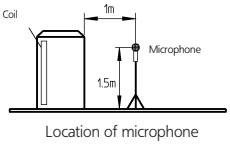
NOTES

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



Location of microphone

9 Sound data

9 - 2 Sound power spectrum

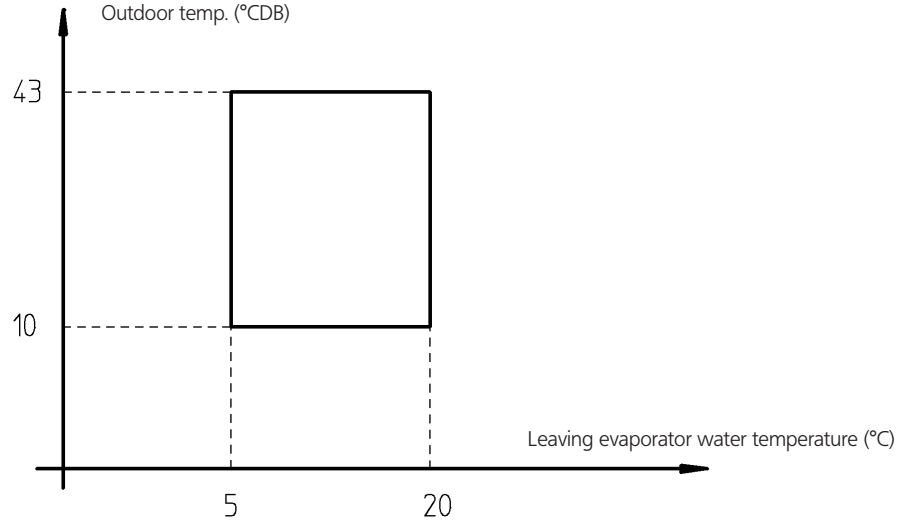
	Sound power total (dBA)	
	LwA - Cooling mode	LwA - Heating mode
EWAQ005ACV3P***	62	N/A
EWAQ006ACV3P***	62	N/A
EWAQ007ACV3P***	63	N/A
EWYQ005ACV3P***	62	60
EWYQ006ACV3P***	62	60
EWYQ007ACV3P***	63	61

Notes:
- Data valid at nominal operation condition
- Measured according ISO3744

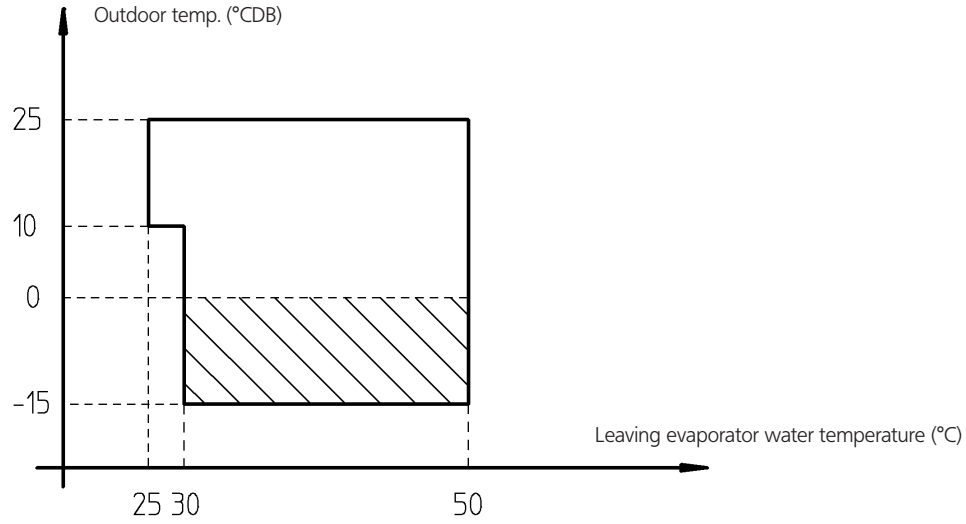
4TW57537-3A

10 Operation range

Cooling mode



Heating mode



: Protect the water circuit against freezing

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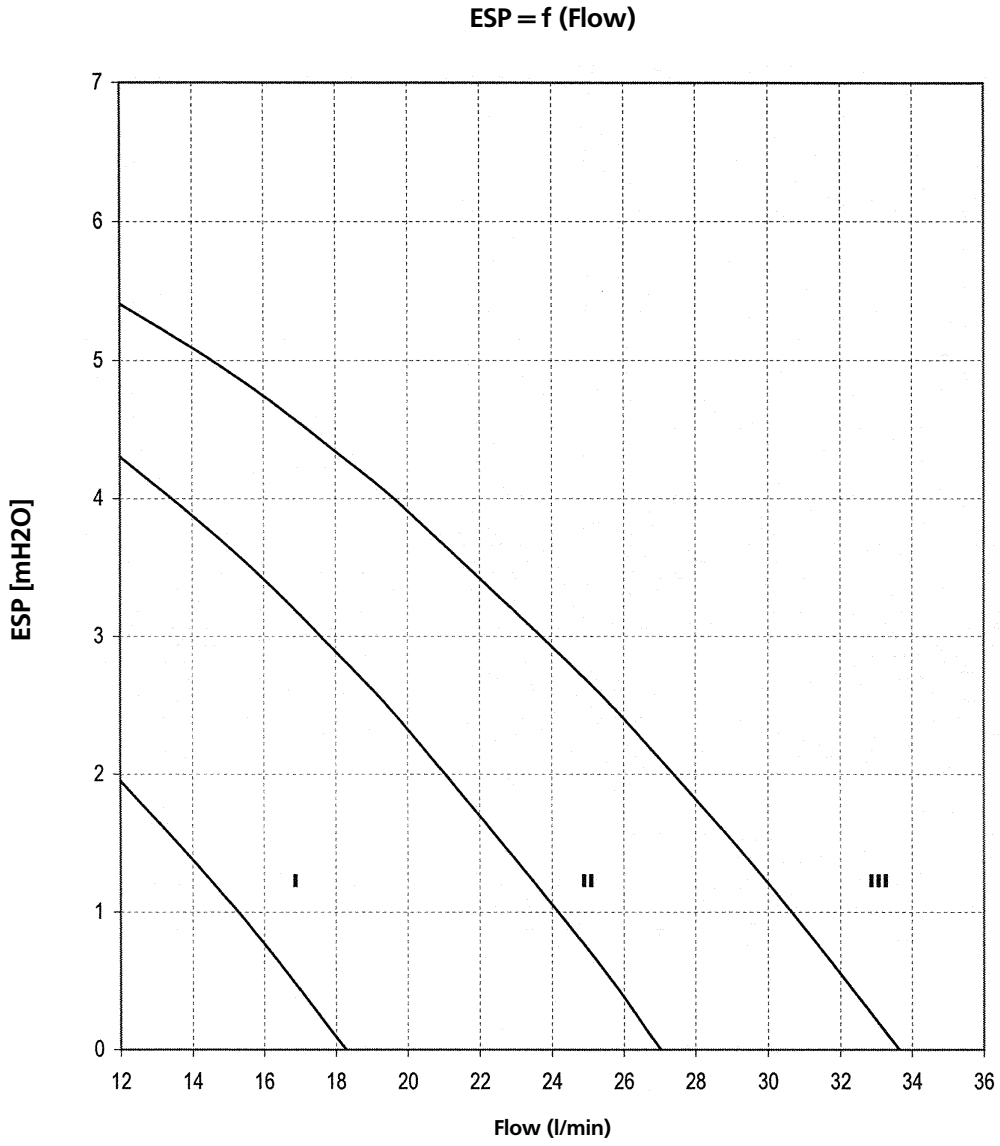
11 Hydraulic performance

11 - 1 Static pressure drop unit



I: low speed setting pump
II: medium speed setting pump
III: high speed setting pump

ESP: External static pressure
Flow: waterflow trough the unit

Warning: Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW56749-2